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K05185/

## Quantel Medical Inc. Special 510(k) Submission Aviso Ophthalmic A and B Scan Ultrasound System

510(k) Summary

June 28, 2005

(1) Submitter information

Name:

Quantel Medical S.A.

Address:

21 rue Newton - Zone du BREZET

Clermont-Ferrand 63039 France

Telephone:

33-473-745 745

Contact person:

Dr. George MYERS (Official Correspondent).

Medsys Inc.

377 Route 17 South

Hasbrouck Heights, New Jersey 07064

Tel: 201-727-1703 Fax: 201-727-1708

Date prepared:

June 23, 2005

#### (2) Name of Device

Trade Name:

"Aviso" Ophthalmic Ultrasound System

Common Name:

Ophthalmic A and B scan ultrasound system

Classification name: System, Imaging, Ultrasonic, Ophthalmic, 980IYO

## (3) Legally-marketed predicate device

The predicate device is Quantel Cinescan S, K021683.

#### (4) Description

The Aviso is a combined ophthalmic A and B scan system that can also be used for biometric measurements of the eye and for IOL calculations.

#### (5) Intended Use

The Quantel Medical Aviso is intended to be used for:

- Axial Length measurement of the eye by ultrasonic means
- Implanted IOL power calculation, using the Axial Length measurement.
- Visualization of the interior of the eye and the orbit by A and B scans.

# (6) Performance Data

### (a) Non-Clinical tests

- IEC 601-1 for Electrical Security
- IEC 601-1-2 for Electromagnetic Compatibility
- FDA transducer emissions tests
- Software validation tests

#### (b) Clinical tests

Since the Aviso uses the same technology as existing devices, clinical tests are not required.

## (7) Conclusion

The Aviso is equivalent in safety and efficacy to the legally-marketed predicate devices.



AUG 3 - 2005

Food and Drug Administration 9200 Corporate Boulevard Rockville MD 20850

Quantel Medical S.A. % Mr. George H. Myers, Sc.D. Official Correspondent Medsys; Inc. 377 Route 17 South HASBROUCK HEIGHTS NJ 07604

Re: K051851

Trade Name: Aviso Ophthalmic Ultrasonic System

Regulation Number: 21 CFR 892.1560

Regulation Name: Ultrasonic pulsed echo imaging system

Régulation Number: 21 CFR 892.1570

Regulation Name: Diagnostic ultrasonic transducer

Regulatory Class: II

Product Code: IYO and ITX

Dated: June 24, 2005 Received: July 21, 2005

#### Dear Mr. Myers:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and we have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

This determination of substantial equivalence applies to the following transducers intended for use with the Aviso Ophthalmic Ultrasonic System, as described in your premarket notification:

Transducer Model Number

B-Scan, 10 MHz "STD-A" A-Scan, 8 MHz B-Scan B-HF, 20 MHZ If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the <u>Federal Register</u>.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

This letter will allow you to begin marketing your device as described in your premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus permits your device to proceed to market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Office of Compliance at (240) 276-0120. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its Internet address <a href="http://www.fda.gov/cdrh/industry/support/index.html">http://www.fda.gov/cdrh/industry/support/index.html</a>

If you have any questions regarding the content of this letter, please contact Rodrigo C. Perez at (301) 594-1212.

Sincerely yours,

Nancy C. Brogdon

Director, Division of Reproductive, Abdominal and Radiological Devices

Office of Device Evaluation

Center for Devices and Radiological Health

Enclosure(s)

| Page _ | 1   | _ of4     |        |
|--------|-----|-----------|--------|
| 510(k) | Num | ber (if k | nown): |
| Device | Nam | e: Aviso  |        |

**Intended Use:** The intended use of the Aviso is for diagnostic imaging of the eye by A and B scans and for biometric measurements of the eye.

### **Mode of Operation**

| CLINICAL                        | Α | В        | M | PWD | CWD | COLOR   | POWER                  | COLOR                                 | COMBINED   | OTHER        |
|---------------------------------|---|----------|---|-----|-----|---------|------------------------|---------------------------------------|--|--------------|
| APPLICATION                     |   |          |   |     | ,   | DOPPLER | (AMPLITUDE)<br>DOPPLER | VELOCITY<br>IMAGING                   | (SPECIFY)  | (SPECIFY)    |
| Ophthalmic                      | P | P        | F |     |     |         |                        |                                       |  |              |
| Fetal                           |   |          | T |     |     |         |                        | 1                                     |  | <del> </del> |
| Abdominal                       |   |          |   |     | 1   |         |                        | · · · · · · · · · · · · · · · · · · · | <del>                                     </del> |              |
| Intra-operative (specify)       |   |          |   |     |     |         |                        |                                       |  |              |
| Intra-operative<br>Neurological |   |          |   |     |     |         |                        |                                       |  |              |
| Pediatric                       |   | 1        | 1 | †   | 1   |         | 1                      |                                       |  |              |
| Small Organ<br>(Specify)        |   |          |   |     |     |         |                        |                                       |  |              |
| Neonatal Cephalic               | 1 |          | 1 | İ   |     |         |                        |                                       |  | <del> </del> |
| Adult Cephalic                  |   |          | 1 |     |     | 1       |                        |                                       |  | <del> </del> |
| Cardiac                         |   |          |   |     | 1   |         |                        | ···                                   | <del></del>                                      |              |
| Trans-esophageal                | 1 | ·        | 1 |     | 1   |         |                        |                                       | <del>                                     </del> | 1            |
| Trans-rectal                    |   | I        |   |     | i   | 1       |                        | †                                     |  |              |
| Trans-vaginal                   |   |          |   |     | i   |         |                        | ,,                                    |  |              |
| Trans-urethral                  |   |          |   |     |     | 1       |                        | † <del></del>                         | -  |              |
| Intra-luminal                   |   |          |   |     |     |         |                        |                                       | ·  |              |
| Peripheral                      |   |          |   |     |     |         |                        | <del></del>                           |  | <del></del>  |
| Vascular                        |   | <u> </u> | ] |     |     |         |                        | 1                                     | -  |              |
| Laparoscopic                    |   |          |   |     |     |         |                        | 1                                     | 1  |              |
| Musculo-Skeletai                |   |          |   |     |     |         |                        |                                       | 1  | <del> </del> |
| Other (Specify)*                |   |          |   |     |     |         |                        |                                       |  | -            |

N= new indication; P= previously cleared by FDA; E= added under Appendix E Additional Comments:

(PLEASE DO NOT WRITE BELOW THIS LINE – CONTINUE ON ANOTHER PAGE IF NEEDED)

| C               | oncurrence o | f CDRH, Office of Device Evaluation (ODE) |
|-----------------|--------------|---|
| Prescription Us | e/           | (Per 21 CFR 810.109)                      |

(Division Sign-Off)
Division of Reproductive, Abdominal, and Radiological Devices K05185

| Page of4   |
|--|
| 510(k) Number (if known):  |
| Device Name: Aviso B-scan Transducer, 10 MHz Intended Use: The intended use of the Aviso 10 MHz B-scan transducer is for diagnostic imaging of the eye |

# **Mode of Operation**

| CLINICAL<br>APPLICATION         | A        | В | М | PWD      | CWD | COLOR<br>DOPPLER | POWER<br>(AMPLITUDE)<br>DOPPLER | COLOR<br>VELOCITY<br>IMAGING | COMBINED<br>(SPECIFY) | OTHER<br>(SPECIFY) |
|---------------------------------|----------|---|---|----------|-----|------------------|---------------------------------|------------------------------|-----------------------|--------------------|
| Ophthamic                       | 1        | P |   |          |     |                  |                                 |                              |                       |                    |
| Fetal                           |          |   |   |          |     |                  |                                 |                              |                       |                    |
| Abdominal                       |          |   |   |          |     |                  |                                 |                              |                       | 1                  |
| Intra-operative (specify)       |          |   |   |          |     |                  |                                 |                              |                       |                    |
| Intra-operative<br>Neurological |          |   |   |          |     |                  |                                 |                              |                       |                    |
| Pediatric                       |          |   |   |          |     |                  |                                 |                              |                       |                    |
| Small Organ<br>(Specify)        |          |   |   |          |     |                  |                                 |                              |                       |                    |
| Neonatal Cephalic               |          |   |   |          |     |                  |                                 |                              |                       |                    |
| Adult Cephalic                  |          |   |   |          |     |                  |                                 |                              |                       |                    |
| Cardiac                         | T        |   |   |          |     |                  |                                 |                              |                       |                    |
| Trans-esophageal                |          |   | 1 |          |     |                  |                                 | İ                            |                       |                    |
| Trans-rectal                    |          |   |   |          |     |                  |                                 |                              |                       |                    |
| Trans-vaginal                   |          |   | Ī |          |     |                  |                                 |                              |                       |                    |
| Trans-urethral                  |          |   |   |          |     |                  |                                 |                              |                       |                    |
| Intra-luminal                   |          |   | T |          | -   |                  |                                 |                              |                       |                    |
| Peripheral                      |          |   |   |          |     |                  |                                 |                              |                       |                    |
| Vascular                        | <u> </u> |   |   | <u> </u> |     |                  |                                 | -                            |                       |                    |
| Laparoscopic                    |          |   |   |          |     |                  |                                 |                              |                       |                    |
| Musculo-Skeletal                |          |   |   |          |     |                  |                                 |                              |                       |                    |
| Other (Specify)*                | 1        |   |   | 1        | 1   |                  |                                 |                              |                       |                    |

N= new indication; P= previously cleared by FDA; E= added under Appendix E

**Additional Comments** 

by B scans..

| (PLEASE DO NOT WRIT | E BELOW THIS LINE – CONTINUE ON ANOTHER PAGE IF NEEDED) |
|---------------------|---|
| Cone                | currence of CDRH, Office of Device Evaluation (ODE)     |
| Prescription Use    | (Per 21 CFR 810.109)                                    |

| - Nancy C. Grogdon   |     |
|--|-----|
| (Division Sign-Off) Division of Reproductive, Abdominal, and Radiological Devices 205185 | Ri- |

| Page3 of4                         |         |              |                |         |
|-----------------------------------|---------|--------------|----------------|---------|
| 510(k) Number (if known):         |         |              |                |         |
| Device Name: Quantel Medical S.A. | "STD-A" | A-scan 8 MHz | transducer for | "Aviso" |

**Intended Use:** The Quantel Medical Aviso 8 Mhz A-scan transducer is intended to be used with the Quantel Aviso A-scans of the eye and for biometric measurements.

## **Mode of Operation**

| CLINICAL<br>APPLICATION         | Α | В | М | PWD | CWD | COLOR<br>DOPPLER | POWER<br>(AMPLITUDE)<br>DOPPLER | COLOR<br>VELOCITY<br>IMAGING | COMBINED<br>(SPECIFY) | OTHER<br>(SPECIFY) |
|---------------------------------|---|---|---|-----|-----|------------------|---------------------------------|------------------------------|-----------------------|--------------------|
| Ophthalmic                      | P |   |   |     |     |                  |                                 |                              |                       |                    |
| Fetal                           |   |   |   |     |     |                  |                                 |                              |                       |                    |
| Abdominal                       |   |   |   |     |     |                  |                                 |                              |                       | <u> </u>           |
| Intra-operative<br>(specify)    |   |   |   |     |     |                  |                                 |                              |                       |                    |
| Intra-operative<br>Neurological |   |   |   |     |     |                  |                                 |                              |                       |                    |
| Pediatric                       |   | T |   |     |     |                  |                                 |                              |                       | <u> </u>           |
| Small Organ<br>(Specify)        |   |   |   |     |     |                  |                                 |                              |                       |                    |
| Neonatal Cephalic               |   |   |   |     |     |                  |                                 |                              |                       |                    |
| Adult Cephalic                  |   | 1 |   |     |     |                  |                                 |                              |                       |                    |
| Cardiac                         |   |   |   |     | I   |                  |                                 |                              |                       |                    |
| Trans-esophageal                |   |   |   |     |     |                  |                                 |                              |                       |                    |
| Trans-rectal                    |   |   |   |     |     |                  |                                 |                              |                       |                    |
| Trans-vaginal                   |   |   |   |     |     |                  |                                 |                              |                       |                    |
| Trans-urethral                  |   |   |   |     | İ   |                  |                                 |                              |                       |                    |
| Intra-luminal                   |   |   |   |     |     |                  |                                 |                              |                       | <u></u>            |
| Peripheral                      |   |   |   |     |     |                  |                                 |                              |                       |                    |
| Vascular                        |   |   |   |     |     |                  |                                 | J                            |                       |                    |
| Laparoscopic                    |   |   |   |     |     |                  |                                 |                              | 1                     |                    |
| Musculo-Skeletal                |   |   |   |     |     |                  |                                 | .]                           |                       |                    |
| Other (Specify)*                |   |   |   |     |     |                  | -                               |                              |                       | <u> </u>           |

N= new indication; P= previously cleared by FDA; E= added under Appendix E

## **Additional Comments:**

| (PLEASE DO NOT WRIT | TE BELOW THIS LINE – CONTINUE ON ANOTHER PAGE IF NEEDED) |
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| Cor                 | currence of CDRH, Office of Device Evaluation (ODE)      |
| Prescription Use    | (Per 21 CFR 810.109)                                     |

| - Vanca                     | c brogkon              |
|-----------------------------|------------------------|
| (Division Sign-Off)         | X                      |
| Division of Reproductive, A | bdominal, <sup>U</sup> |
| and Padrological Devices    | 11051851               |
| 5104iq Number               | KUJIOJI _              |

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|--|
| 510(k) Number (if known):                        |
| Device Name: Aviso(B-scan)transducer B-HF 20 MHz |

**Intended Use:** The intended use of the Aviso B-HF B-scan transducer is for diagnostic imaging of the eye by B scans and for biometric measurements of the eye.

## **Mode of Operation**

| CLINICAL                        | A        | В | M  | PWD  | CWD          | COLOR             | POWER   | COLOR  | COMBINED   | OTHER  |
|---------------------------------|----------|---|--|--|--------------|-------------------|---|--|--|--|
| APPLICATION                     |          |   |  |  |              | DOPPLER           | (AMPLITUDE)<br>DOPPLER                            | VELOCITY<br>IMAGING                              | (SPECIFY)  | (SPECIFY)  |
| Ophthamic                       |          | P | <del>                                     </del> | <del>                                     </del> | -            | <del></del>       | DOTTLER   | IMAGING  | <del></del>                                      | <del> </del>                                     |
| Fetal                           |          | 1 | 1  | <del> </del>                                     | <del> </del> | <del>  -,</del> - | <del></del>                                       | <del>                                     </del> | <del> </del>                                     | ļ  |
| Abdominal                       |          | 1 | 1  | <del> </del>                                     | <del> </del> |                   | <del></del>                                       | <u> </u>   | <del> </del>                                     | <del> </del>                                     |
| Intra-operative (specify)       |          |   |  |  |              |                   | <del>                                     </del>  |  |  |  |
| Intra-operative<br>Neurological |          |   |  |  |              |                   |   |  | -  |  |
| Pediatric                       | <b>*</b> |   | 1  |  |              |                   |   |  | -  | <del> </del>                                     |
| Small Organ<br>(Specify)        |          |   |  |  | 1            |                   |   |  |  | <del> </del>                                     |
| Neonatal Cephalic               |          |   |  | T  |              |                   |   |  | <del></del>                                      | <del> </del>                                     |
| Adult Cephalic                  |          | 1 |  |  |              |                   | <del>                                     </del>  |  | <del> </del>                                     | <del>                                     </del> |
| Cardiac                         |          |   |  |  | -            |                   |   | ··   | <del>                                     </del> | <del> </del>                                     |
| Trans-esophageal                |          |   |  |  |              |                   | † <del></del>                                     |  | <del></del>                                      | <del> </del>                                     |
| Trans-rectal                    |          | T |  |  | <u> </u>     |                   |   |  | <del> </del>                                     |  |
| Trans-vaginal                   |          |   |  | <u> </u>   |              | T                 | <del>                                      </del> |  | <del></del>                                      |  |
| Trans-urethral                  |          | 1 |  |  | 1            |                   | ·   · · · · · · · · · · · · · · · · · ·           |  | <del>                                     </del> |  |
| Intra-luminal                   |          |   | 1  |  |              | <del> </del>      | -   |  | <del></del>                                      |  |
| Peripheral                      |          | 1 | i  | †  |              |                   |   |  |  |  |
| Vascular                        |          |   |  |  |              |                   |   |  |  |  |
| Laparoscopic                    |          |   | Ī  |  |              | 1                 |   |  |  | <del></del>                                      |
| Musculo-Skeletal                |          |   |  |  |              |                   |   |  |  |  |
| Other (Specify)*                |          |   |  |  | 1            |                   | T   |  |  | <b></b>  |

N= new indication; P= previously cleared by FDA; E= added under Appendix E

**Additional Comments:** 

| (PLEASE DO NOT WRIT | TE BELOW THIS LINE – CONTINUE ON ANOTHER PAGE IF NEEDED) |
|---------------------|--|
| Con                 | currence of CDRH, Office of Device Evaluation (ODE)      |
| Prescription Use    | (Per 21 CFR 810.109)                                     |